

WHAT IS CLAIMED IS:

1. A multiaxial hinge assembly that enables rotation about a first axis between a clockwise limit and a counterclockwise limit and rotation about a second axis that is orthogonal to the first, comprising:
  - a surface rotatable about the first axis and comprising a display window; and
  - a display surface underlying the surface rotatable about the first axis, the display surface comprising:
    - a first directional indicator indicating a counterclockwise rotational direction and positioned to be revealed in the display window when the multiaxial hinge assembly is rotated substantially to the clockwise limit, and
    - a second directional indicator indicating a clockwise rotational direction and positioned to be revealed in the display window when the multiaxial hinge assembly is rotated substantially to the counterclockwise limit.
2. The multiaxial hinge assembly of claim 1, wherein the directional indicators comprise arrows.
3. The multiaxial hinge assembly of claim 1, wherein the surface rotatable about the first axis further comprises a second display window, and wherein the display surface underlying the surface rotatable about the first axis further comprises:
  - a third directional arrow, the third directional arrow pointing in a counterclockwise rotational direction and positioned to be revealed in the second

display window when the multiaxial hinge assembly is rotated substantially to the clockwise limit; and

a fourth directional arrow, the fourth directional arrow on the display surface pointing in a clockwise rotational direction and positioned to be revealed in the second display window when the multiaxial hinge assembly is rotated substantially to the counterclockwise limit.

4. A multiaxial hinge assembly, comprising:

a pivot platform rotatable about a first axis between a clockwise limit and a counterclockwise limit;

a pivot mounted to the pivot platform that defines a second axis of rotation orthogonal to the first axis;

a display surface substantially centered on and normal to the first axis, comprising a first rotational directional indicator positioned along a first radius of the first axis at a first radial distance, and a second rotational directional indicator positioned along a second radius of the first axis at substantially the same distance as the first radial distance; and

a first display window overlying the display surface dimensioned and adapted to selectively display the first and second directional indicators therethrough;

wherein a rotation of the pivot platform to the clockwise limit enables the first directional indicator to be displayed in the first display window and a rotation of the pivot platform to the counterclockwise clockwise limit enables the second directional indicator to be to be displayed in the first display window.

5. The multiaxial hinge assembly of claim 4, wherein the display surface is rotationally fixed in position with respect to the first axis and the first display window is rotatable about the first axis together with the pivot platform.
6. The multiaxial hinge assembly of claim 4 wherein the display surface further comprises a third directional indicator along a third radius of the first axis at a second radial distance and a fourth directional indicator of the first axis at substantially the same second radial distance, and wherein the multiaxial hinge assembly further comprises a second display window overlying the display surface dimensioned and adapted to display the third directional indicator at substantially the same time as the first directional indicator is displayed in the first display window and to display the fourth directional indicator at substantially the same time as the second directional indicator is displayed in the first display window.
7. The multiaxial hinge assembly of claim 6 wherein the first and second display windows are positioned on opposite sides of the second axis.
8. The multiaxial hinge assembly of claim 4 wherein the clockwise and counterclockwise limits are adapted to prevent rotation of the pivot platform about the first axis beyond approximately 180 degrees.

9. A multiaxial hinge assembly comprising:

a pivot platform rotatable about a first axis and comprising an center aperture that is substantially coaxial with the first axis;

a pivot mounted to the pivot platform which defines a second axis of rotation orthogonal to the first axis, the pivot comprising two opposing hinge pins extending radially outwardly from the center aperture;

a plurality of opposing hinge plates rotatably secured to the hinge pins,

a display window positioned in the pivot platform a predetermined radial distance from the first axis;

a stop post projecting downwardly from the pivot platform;

a surface underlying the pivot platform that is rotationally stationary with respect to the first axis and substantially centered thereon, comprising a clockwise directional arrow, a counterclockwise directional arrow and a center aperture that is substantially coaxial with the first axis; and

a stop assembly positioned beneath the pivot platform that is rotationally stationary with respect to the first axis and substantially centered thereon, the stop assembly comprising a counterclockwise stop pocket and a clockwise stop pocket adapted to engage the stop post when the pivot platform is rotated about the first axis to predetermined clockwise and counterclockwise limits and comprising a center that is substantially coaxial with the first axis;

wherein a rotation of the pivot platform to the clockwise limit causes the first directional indicator to be displayed in the first display window and a rotation of the pivot platform to the counterclockwise clockwise limit causes the second directional indicator

to be displayed in the first display window to display a direction of rotation to a user in order to avoid an incorrect rotation of the multiaxial hinge assembly and over twisting of electrical cables passing through a channel in the multiaxial hinge assembly that is substantially coaxial with the first axis.

10. A multiaxial hinge assembly that enables rotation about a first axis between a clockwise limit and a counterclockwise limit and rotation about a second axis that is orthogonal to the first, comprising an indicator to provide an indication to a user to avoid an incorrect rotation about the first axis, the indicator comprising:

actuator means to provide a signal corresponding to a rotational direction of the hinge assembly; and

indicator means operatively coupled to the actuator means to provide an indication to a user of the rotational direction.

11. The multiaxial hinge assembly of claim 10 wherein the actuator comprises a magnet rotatable about the first axis between the clockwise and counterclockwise limits and a magnetic sensor to provide a signal which may be used to determine whether the magnet is positioned substantially proximate the clockwise limit or the counterclockwise limit.

12. A method of providing an indication to a user of a direction of rotation about a first axis of a multiaxial hinge assembly that enables rotation about at least two

orthogonal axes, wherein rotation about the first axis is constrained by counterclockwise and clockwise limits, the method comprising:

providing a display window in a rotating surface of the hinge assembly; and  
providing a display surface underlying the rotating surface, the display surface comprising a first directional arrow pointing in a counterclockwise rotational direction and positioned to be revealed in the display window when the rotating surface is substantially rotated to the clockwise limit and a second directional arrow pointing in a clockwise rotational direction and positioned to be revealed in the display window when the rotating surface is rotated substantially to the counterclockwise limit.

13. The method of claim 12, wherein the display surface is stationary with respect to the first axis of rotation.

14. A personal computer comprising:

a display portion;  
a main body portion; and  
a multiaxial hinge assembly on which the display portion is mounted to the main body portion and which enables the display portion to be rotated relative to the main body portion about at least two orthogonal axes, the multiaxial hinge assembly comprising:

means to indicate a direction of rotation about a first axis when the display portion is rotated about the first axis substantially to at least one predetermined position.

15. The personal computer of claim 14, wherein the at least one predetermined position comprises a rotational limit.
16. The personal computer of claim 15, wherein the means to indicate a direction of rotation comprises an arrow that is oriented to indicate a direction of rotation away from the rotational limit when the display is rotated about the first axis substantially to the at least one predetermined position.
17. The personal computer of claim 16, wherein the arrow is revealed in a window positioned on a surface of the multiaxial hinge assembly when the display is rotated about the first axis substantially to the at least one predetermined position.
18. The personal computer of claim 17 wherein the surface on which the arrow is positioned is stationary with respect to rotation about the first axis.
19. The personal computer of claim 15, wherein the means to indicate comprises an LED.
20. The personal computer of claim 15, wherein the means to indicate comprises an audible alert.

21. The personal computer of claim 15, wherein the means to indicate comprises a software routine to generate visual or audible indicators.